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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/778,849	02/08/2001	Alex Alon	ALON=1	6154

7590 06/28/2005

BROWDY AND NEIMARK, P.L.L.C.
624 Ninth Street, N.W.
Washington, DC 20001

EXAMINER	
KASSA, YOSEF	

ART UNIT	PAPER NUMBER
2625	

DATE MAILED: 06/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/778,849	ALON ET AL.	
	Examiner	Art Unit	
	YOSEF KASSA	2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *08 February 2001*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-24* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *13 and 23* is/are allowed.

6)☒ Claim(s) *1,8,14,21,22 and 24* is/are rejected.

7)☒ Claim(s) *2-7,9-12 and 15-20* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Drawings Objection

1. The drawings are objected to under 37 CFR 1.83(a) because they fail to show detailed description of the drawing as described in the specification. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 8, 14, 21, 22 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yazici et al (U.S. Patent 6,333,990), and further in view of Allison et al (U.S. Patent 5,748,491).

With regard to claim 1, Yazici discloses a method processing a digital image B1, the image B1 being a convolution if an image F (refer to Fig. 3, the X-ray image 252 input into convolution process of item 254) and removing noise from the image B1 so as to produce an image B' of reduced noise (see Fig. 4, item 280 removing high frequency edges and intensity regions from X-ray image, (which reads on noise removing), and calculating F based upon B' (see col. 3, lines 1-15).

Yazici does not disclose expressly a point spread function process. However, at the same field of endeavor, Allison teaches this feature (see col. 5, lines 5-15). At the time of the invention was made, it would have been obvious to a person of ordinary skill in the art to incorporate the teaching of Allison point spread function process into Yazici system. The suggestion/motivation for doing so would have been to provide a form of function values or set of discrete values of image signal. Therefore, it would have been obvious to combine Allison and Yazici to obtain the invention as specified in claim 1.

With regard to claim 8, Allison discloses a method for processing a deconvoluted image B, the image B having been deconvoluted according to deconvolution filter D (see col. 8, lines 1-5, the deconvolution process comprises filtering process), the method comprising reducing correlation between the image and the deconvolution filter (see col. 8, lines 12-24).

Yazici does not disclose expressly deconvolution process. However, at the same field of endeavor, Allison teaches this feature (see col. 2, lines 15-24). At the time of the invention was made, it would have been obvious to a person of ordinary skill in the art to incorporate the teaching of Allison deconvolution process into Yazici system. The suggestion/motivation for doing so would have been to provide improved signal processing method in a signal processor for performing the deconvolution of an image signal. Therefore, it would have been obvious to combine Allison and Yazici to obtain the invention as specified in claim 8.

With regard to claim 14, Allison discloses a method for obtaining a radius r (broadly reads on T distance between the center of the window K) a point spread function h describing an out-of-focus distortion of a digital image B (see col. 6, lines 50-67), the method comprising a step of calculating a gradient at a plurality of pixels in the image B (see col. 4, lines 10-20).

Yazici does not disclose expressly radius r of a point spread function. However, at the same field of endeavor, Allison teaches this feature (see col. 5, lines 5-15). At the time of the invention was made, it would have been obvious to a person of ordinary skill in the art to incorporate the teaching of Allison point spread function process into Yazici

system. The suggestion/motivation for doing so would have been to provide a form of function values or set of discrete values of image signal. Therefore, it would have been obvious to combine Allison and Yazici to obtain the invention as specified in claim 14.

Reasons for Allowance

3. Claims 13 and 23 are allowed.

The following is an examiner's statement of reasons for allowance. The closest prior art of record failed to teach or suggest, obtaining function P_l (q) according to the algebraic expression P_l (q) = B' (q) / h (q), reducing correlation between P_l and 1/h so as to product a function p' of reduced correlation, and obtaining a rectified image F by inverse Fourier transform of P' (q). Therefore, in combination with all the other limitations claims 13 and 23 are allowable.

4. Claims 2-7, 9-12 and 15-20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Other Prior Art Cited

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US Patent No. (5867410) to Smallcombe et al discloses time correction for digital filters...

US Patent No. (5,580,728) to Perlin discloses method and system for genotyping.

US Patent No. (6,567,570) to Steinle et al discloses optical image scanner with internal measurement...

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to YOSEF KASSA whose telephone number is (703) 306-5918. The examiner can normally be reached on Monday-Thursday from 8:00 AM to 6:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, BHAVESH MEHTA can be reached on (703) 308-5246. The fax phone numbers for the organization where this application or proceeding is assigned is (571) 273-8300 regular communication and (571) 273-8300 for after Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the customer service office whose telephone number is (703) 306-5631. The group receptionist number for TC 2600 is (703) 305-4700.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

PATENT EXAMINER

Yosef Kassa

06/21/05.

BHAVESH M. MEHTA
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600